PROGRESS

OF

MEDICAL SCIENCE.

THERAPEUTICS.

UNDER THE CHARGE OF

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THE OLEO-CREASOTE OF DIEHL.

M. J. L. PREVOST, recalling the fact that the administration of large doses of creasote or guaiacol has been followed by symptoms of gastro-intestinal intolerance, and even of poisoning, resembling those of phenol, believes that the combination proposed by Diehl, of creasote and oleic acid, would produce a remedy capable of being split up in the organism and of setting free a definite amount of creasote without giving rise to symptoms of intolerance. The preparations made under the above name have contained 33 per cent. of creasote or guaiacol. The remedy is an ether, which oleic acid forms with creasote under the influence of different dehydrating substances, as trichloride or oxychloride of phosphorus. The mixture is made by heat, and the ether found in the uppermost layer is decanted and purified by repeated washings with either water or pure water made alkaline by carbonate of soda, then dried by dehydrated sulphate of soda and filtered. It appears, when pure, as a yellowish liquid of oily consistence, suggesting the taste of creasote, but is not caustic to the tongue. It is absolutely insoluble in water, slightly in 90 per cent. alcohol, more easily in absolute alcohol, but readily in all substances which dissolve fats, as ether, benzine, chloroform, turpentine, sulphide of carbon, and fatty oils. It readily forms an emulsion with gum arabic, or yelk of egg, and this is the most agreeable form of exhibition. Experiments were made by hypodermatic or by peritoneal injection, and by administration by the stomach, and were in comparison with a similar series of administration of simple mixtures of guaiacol or creosote in oil. Careful urinary examinations were made. The conclusions are: 1. Creasote in an oleic combination (oleo-creasote) is tolerated in larger doses than creasote simply mixed with oil, and without producing symptoms of gastro-intestinal disturbance. 2. It is much less poisonous than is a mixture of creasote in oil. 3. After hypodermatic injection it is split up and eliminated in the urine. This elimination is sometimes slow, and lasts longer than from injection of a mixture of creasote in oil. 4. If administered by the stomach, it is evidently split up and gives rise to an elimination of phenol at least as great as when it is injected in the form of a simple solution in oil. The experiments were made from a purely pharmacological and toxicological standpoint, and do not permit of any therapeutical deductions as to the greater or lesser value of oleo-creasote as compared to that of creasote in solution in oil.—*Revue Médicale de la Suisse Romande,* 1893, No. 2, p. 102.

THE USE OF CHLORIDE OF CALCIUM IN THE TREATMENT OF PNEUMONIA.

DR. A. CROMBIE reports twenty-two cases of acute lobar pneumonia, one only being fatal, which ran a singularly mild course on a treatment which consisted simply and solely of chloride of calcium, in doses, for adults, of from five to fifteen grains every four hours. A constant phenomenon in pneumonia is the presence of peptonuria, and it is not impossible that the action of the chloride of calcium may consist in its neutralizing the toxic action of these peptones, or albumoses, circulating in the blood; if it be not some more intimate action in the blood, of the vitality of which we do not as yet know much more than the necessity for the presence of calcium chloride for the existence of the fibrin ferment.—*Indian Medical Gazette,* 1893, No. 2, p. 33.

THE TREATMENT OF PULMONARY CONGESTION OF INTESTINAL ORIGIN.

DR. HENRI HUCHARD, recalling the observations of Sevestre, of Macé and Simon, of Lesage, and others, recording the fact that the bacterium coli commune may be found in the lungs in pulmonary disturbances, records the history of a case. The intestine was cleared by calomel and resin of scammony, and intestinal antisepsis secured by the administration of benzo-naphthol, which should be administered to the amount of two and one-half drachms daily, and with the addition of powdered charcoal. Under this treatment, the gastro-intestinal disturbance ceased, and, with equal rapidity, the pulmonary congestion, and that without the use of expectorants or revulsives.—*Revue générale de Clinique et de Thérapeutique,* 1893, No. 7, p. 99.

A NOTE ON THE ADMINISTRATION OF DILUTE NITRO-HYDROCHLORIC ACID.

DR. A. LOCKHART GILLESPIE concludes from the experiments which he has performed in the laboratory, that nitric acid has the power of combining with proteids, but lacks that power, so strongly evinced by hydrochloric acid, of splitting the proteid molecule in the presence of pepsin, and its presence, therefore, probably hinders the action of hydrochloric acid by attaching itself to proteid molecules. Arguing from these grounds, in prescribing dilute nitro-hydrochloric acid he adds to it some dilute hydrochloric acid. In cases of dyspepsia in which the liver is obviously out of order, leading to some congestion of the portal system and decreased secretion of the gastric juice, and in cases of headache relieved by the administration of acids—when the pain is frontal and close above the frontal sinuses—the two acids, with such other drugs as may be needed, yield the happiest of results.—*The Medical Press*, 1893, No. 2808, p. 219.

BROMOFORM IN WHOOPING-COUGH.

MR. F. W. BURTON-FANNING recommends this remedy, which is conveniently dispensed in the proportion of one minim, suspended in one-half drachm of compound tragacanth powder, the same quantity of simple syrup, to which three drachms of water is added. The dose varies from one-half a minim for children under one year, to two minims up to six years, given thrice daily. These doses may be gradually increased to twice the quantity. The bottle must be kept in the dark and shaken before each dose.—*The Practitioner*, 1893, No. 296, p. 100.

THE TREATMENT OF PTYALISM BY PYOKTANIN.

DR. M. HEIMANN reports a single case of salivation, the cause not being ascertained. After the use of Lugol's solution and alum without result, great improvement followed the administration of iodide of potassium. Two months later this symptom returned. At this time the former successful treatment was of no avail. The mucous membrane of the entire mouth was painted with a one to one thousand solution of blue pyoktanin, twice daily. The ptyalism rapidly improved and disappeared within three weeks.—*Therapeutische Monatshefte*, 1893, Heft 2, S. 76.

THE TREATMENT OF TABES DORSALIS.

IN the Report of the Assistant Inspector-General of the National Homes for Disabled Volunteer Soldiers are found the results of a collective investigation of this disease during the year 1891-92.

DR. F. H. PATTON, from his observation of twenty-four cases, has never seen a case, excepting one, in which the patient was not disposed to try hopefully any treatment suggested, and always with apparent temporary benefit. Eight cases were treated by suspension, and at first with marvellous results, but all finally abandoned this method, the last after an experience of five months. For the immediate relief of pain nothing has been so effectual as acetanilide. For the more permanent relief of all symptoms and for seeming improvement, nothing has been so successful as the sulphate of strychnine in $\frac{1}{80}$ grain doses, administered hypodermatically, twice a day, and continued for several weeks.

DR. WALTER H. LEIGHTON reports three cases; one in which there was steady improvement under the administration of iron, quinine, and strychnine, the acute exacerbations being controlled by atropine and acetanilide; a second received a mixture of iodine and iodide of potassium without improvement; while a third did not improve with the usual remedies.

DR. S. J. F. MILLER has made a report of seven cases, the treatment having been carried out by Assistant-Surgeon Elwell. Phenacetine appears to relieve the pain more satisfactorily than other remedies which have been in use. In cases where a syphilitic history has been obtained, they have been treated the same as if suffering from that disease. The remedies used have been nitrate of silver in $\frac{1}{8}$ to $\frac{1}{4}$ grain doses, three times daily; liquor arsenii et hydrargyri iodidi, sulphate of strychnine, $\frac{1}{20}$ grain, three times daily; the faradic brush to the extremities, and suspensions. The appearance of the patients has improved, but it is doubtful if there is any real physical improvement.

DR. A. D. KIMBALL has used electricity, arsenic, aad strychnine, in three cases with indifferent success. The interrupted current, used three times weekly, with positive pole to the nucha and the negative to the sacrum, seemed to have a temporary stimulating effect.

DR. H. E. HASSE has treated five cases; in one ataxic symptoms disappeared after receiving $\frac{1}{3}$ grain of nitrate of silver, three times daily, followed by a course of treatment by suspension, although the latter failed in the remaining four cases; in one, however, galvanization of the spine ameliorated the cephalic and abdominal neuralgias and insured better sleep.

DR. R. W. MCMAHON claims that there is some improvement in the general condition of most of his patients by the aid of general supporting treatment and diet, supplemented by sanitary environments. Two cases only are reported.

DR. T. O. BURLESON, in eight cases, has obtained marked benefit from suspension.

DR. J. S. HAYNES reports a case where cure followed the use of iodide of potash and compound tincture of gentian, cold sponge baths, and friction over the spinal column. There was no history of syphilis.

DR. W. B. WALTERS states that one patient has taken arsenic, nitrate of silver, and electricity without benefit. Improvement followed the administration of phosphorus and nux vomica.

DR. W. G. BROWNSON has had eleven cases under observation, and concludes that the greatest benefit is to be derived in those cases of clearly syphilitic origin, where vigorous treatment with iodide of potash should be employed, alternating with arsenic. In the ataxic stage, electricity and drugs have given but little satisfaction. Moderate doses of nux vomica, continued for a considerable time, have given the best results.

DR. S. M. NELSON reports that phosphorus has seemed to do the most good in the one case under his care.

DR. D. R. GREENLEE has treated two cases; one with the faradic current and iodide of potash; the other with protiodide of mercury and iodide of potash, both being apparently benefited.—*Report of Gen. William W. Averell, U. S. A.*, 1892, p. 163.

[The large number of patients, their continuous residence affording opportunity for prolonged investigation, and the evident accuracy and care in making out the records, render this report valuable.—R. W. W.]

A NEW AGENT IN THE TREATMENT OF EPILEPSY.

DR. PAUL GIBIER, reviewing the literature of the past two years, believes that one observation, at least, has been established. Some patients suffering from epilepsy have had their seizures checked, at least temporarily, after the injections of the rabic virus. In a single case, under his observation, the Pasteur injections failed. He then commenced experimentation with the injection of extract of gray nervous substance. In one case the improvement was most satisfactory. In three other cases the improvement of the general condition was noticeable.—*New York Therapeutic Review*, 1893, No. 1, p. 2.

THE TREATMENT OF MORPHINOMANIA.

DR. ENR. CHAMBARD classifies the methods in vogue. The rapid method of cure of Levinstein demands confinement in an institution, absolute impossibility of secreting or procuring a supply of the drug, precautions against bodily injury, constant care, mental occupation, physical exercise during several weeks, the critical period, however, lasting only five or six days. The progressive method, for which the rules have been formulated by Zambaco, consists in the gradual diminution of the daily dosage, and usually requires longer treatment. Erlenmeyer has introduced certain improvements in the first-mentioned method, which the writer believes to present certain advantages. The patient is kept under observation for several days, receiving his usual daily dosage of morphine, and at once the amount is diminished one-half, and usually without great disturbance. It is necessary to care for the sleep, appetite, and digestive functions of the patients, and to interfere with the evening dose as little as possible. Soon this daily amount is again reduced one-half, and the process repeated at intervals until the small amount taken renders the total withdrawal absolutely safe. Watchful care of the patient until his complete restoration to health, is insisted upon. This method causes far less suffering to the unfortunate patient than either of the others.—*La Médecine Moderne*, 1893, No. 23, p. 266.

TOLYPYRIN.

DR. PAUL GUTTMANN reports the results of a clinical study of this remedy, which extended over a period of several months. This drug, known to the chemists as para-tolyldimethylpyrazolon, differs from antipyrine is that an atom of hydrogen in the phenyl radical, C_6H_5, is replaced by the methyl radical, CH_3. It occurs in colorless crystals having a melting-point of 278° F., of bitter taste, soluble in about ten parts of water, readily soluble in alcohol, and insoluble in ether. In cases of typhoid fever, pneumonia, facial erysipelas, scarlatina, phthisis, septicæmia, and otitis media, it was found that one drachm of this remedy in four equal doses at hourly intervals, commencing at noon, reduced the temperature at least two and a half, generally three and a half degrees, frequently still further. This fall commenced during the first hour of the administration of the remedy, and continuing, reached the lowest point within five or six hours, rarely later. After the stopping of the drug, the gradual rise of temperature began, but usually so slowly that the highest point was not reached until the following forenoon, and then the temperature was generally not so high as before its administration. This fall of temperature is accompanied by sweating of the body, particularly upon the face, more or less profuse, and may last so long as the temperature falls. The succeeding rise of temperature is not marked by chilly sensations. The frequency of the pulse follows the range of temperature. The range and duration of the temperature-reduction is the same as with antipyrine. With this amount of the drug there appears to be no unpleasant secondary action. In a case of pneumonia two drachms were administered within eight hours, by mistake, without the slightest untoward result. In acute articular rheumatism, in typical mild cases, one drachm in four doses, at intervals of three hours, relieves the pain and swelling in from twenty-four to forty-eight hours. In severe cases the results vary, as do those obtained by salicylic acid and by antipyrine. If necessary, the daily dose can be increased to ninety grains. In rheumatism, it has a position by the side of salicylic acid. As an analgesic, in headache, it was of the same utility as antipyrine. As the price of this remedy is less than that of antipyrine, and in intensity of its action as an antipyretic, anti-rheumatic, and analgesic, is equal to the latter, it should be preferred.—*Berliner klinische Wochenschrift*, 1893, No. 11, S. 249.

CHLORALAMID IN THE INSOMNIA OF FEVERS.

DR. HERMAN D. MARCUS recommends this remedy as best given in powder, or dissolved in some aqueous or alcoholic solution, in doses of from ten to sixty grains, the half being about the average dose. In typhoid fever, particularly in coma vigil, facial erysipelas, infectious fevers, and the febrile diseases peculiar to childhood, as measles, diphtheria, and scarlatina, he finds this drug of value.—*The American Therapist*, 1893, No. 10, p. 242.

THE TREATMENT OF CHLOROSIS.

DR. DUCLOS regards true chlorosis as consisting essentially in an auto-infection of intestinal origin. He insists upon a daily evacuation of the bowels, obtained not by purgatives, but by injections, either simply of water, perhaps with glycerin or oil, or slightly saline, aiming to secure a spontaneous evacuation at the same hour; or suppositories of soap, cacao-butter, or glycerin can be used; if simple means fail, then castor oil can be employed; avoiding, however, the salines. Iron is important, of which the ammonio-citrate is placed at the head; other forms may be used, but the simple will be always the best—to be always given with the meals. The patient should eat whatever the stomach will accept and digest without constipation or diarrhœa, but an exclusively animal diet should not be allowed. The activity of the skin must be maintained by warm general rain douches, or by friction. Out-door exercise is prescribed. Deep inspiration of air is necessary, or, in special cases, short but repeated inhalations of oxygen, either pure or mixed with a definite quantity of air.—*Revue générale de Clinique et de Thérapeutique*, 1893, No. 8, p. 113.

CASCARINE.

M. LEPRINCE has extracted from the bark of the cascara sagrada a new crystalline body which appears to be the active principle, to which he has given the above name. Extracted by one of two processes, both of which are given, it appears in the form of prismatic needles, odorless, tasteless, soluble in alcohol (to which it gives a yellow color), in chloroform, slightly in ether, and not at all in water. Its chemical formula is $C_{12}H_{10}O_5$.—*Bulletin général de Thérapeutique*, 1893, 10e liv., p. 221.

TROPACOCAINE.

DR. OTTO SEIFERT, taking up the investigation of this drug, which has been studied by Chadbourne [see THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, 1892, vol. civ. p. 591], has experimented upon healthy individuals, using a 5 per cent. solution. Anæsthesia of the nasal mucous membrane was produced by three applications, but without great reduction of the volume, although ischæmia was observed, and frequently symptoms of irritation, as burning. One or two applications to the throat and naso-pharynx, and to the larynx, produced anæsthesia, but also in one case very marked symptoms of irritation. A 10 per cent. solution gave better results, but here also there was a failure to reduce the volume of the mucous membrane. In equal concentration with cocaine it is less poisonous, but operations are not easy on account of the hemorrhage, and this is more difficult to control. These disadvantages then, in spite of its relative harmlessness, prevent its displacing the older drug.—*Internat. klin. Rundschau*, 1893, No. 8, S. 281.

THIURET.

DR. F. BLUM presents a very careful study of this sulphur-containing antiseptic, which arises from the oxidation of phenyl dithiobiuret as follows: $C_8H_9N_3S_2 + O = H_2O + C_8H_7N_3S_2$. It possesses weak basic properties, is a light, odorless, crystalline powder, almost insoluble in water, but is rather readily soluble in alcohol and ether. When it is decomposed, it sets free sulphur *in statu nascendi*. Biological experiments show that it has a strong antiseptic action. It has been found desirable to have a soluble preparation, and with this as a base, various salts have been made with iodine, chlorine, boron, and phenol. Of these, thiuret-phenol-sulphonate presents certain advantages. It is a light, yellow, odorless crystalline powder of exceedingly bitter taste, soluble to 3 or 4 per cent. in water, but insoluble in alcohol, ether, and oils. This preparation also has been shown to be a powerful bactericide, but in external application it is not poisonous. Administered to dogs and rabbits by way of the stomach it produced diarrhœa and vomiting, but in no respect was it harmful. Therapeutical observations have not yet been made.—*Deutsche medicinische Wochenschrift*, 1893, No. 8, S. 177.

THE TREATMENT OF DIABETES MELLITUS BY FEEDING ON RAW PANCREAS AND BY THE SUBCUTANEOUS INJECTION OF LIQUOR PANCREATICUS.

DR. W. HALE WHITE presents a very careful report of two cases under observation. Each patient was for the whole period kept upon a diet consisting each day of twenty Soya-bean biscuits, two eggs, two ounces of butter, two almond biscuits, one fluidounce of milk, twelve ounces of cooked meat, greens, water-cress, tea, and soda-water. The state of the patient and of the urine on this diet having been ascertained, each was given, in addition, for his supper, about two ounces of raw fresh sheep's pancreas chopped fine and flavored with pepper and salt. When this was discontinued five minims of liquor pancreaticus were injected subcutaneously night and morning, the restricted diet being as before. As regards sugar, in one case it was distinctly less when raw pancreas was taken than it was before, and the same effect, but to a less degree, was associated with the injection of liquor pancreaticus subcutaneously. In the second case neither of these methods had any effect in reducing sugar. Neither feeding on pancreas nor the injection of liquor pancreaticus had any decided effect upon the quantity or specific gravity of the urine. It is doubtful if either of these methods had any effect upon the urea. The patients do not lose weight when treated with the pancreas; perhaps they gain a little; and if there is any other alteration they feel a little better for the treatment. As disadvantages are cited the fact that the first patient suffered from a severe erythema accompanied by fever, and that the second, although having no rash, yet experienced a rise of temperature and a slight sore-throat upon one day. The conclusions are that it is very doubtful whether feeding on fresh pancreas, or the subcutaneous injection of liquor pancreaticus is of any benefit in diabetes mellitus.—*British Medical Journal*, 1893, No. 1679, p. 452.

THE TREATMENT OF DIABETES MELLITUS BY SALOL.

DR. ARTHUR NICOLAIER reports seven cases which received thirty grains of this remedy thrice daily. The results were very dissimilar; in many cases there were apparently none, in others the diabetic symptoms were influenced to a greater or lesser extent, but what particular class of cases will be benefited one cannot certainly point out. In general the remedy was well borne, although it may diminish the appetite, produce tinnitus and gastric pain, rarely vertigo. It is best administered in wafers. Albuminuria, and particularly nephritis, is a contra-indication to the use of this remedy.—*Therapeutische Monatshefte*, 1893, Heft 3, S. 102.

PHENOSALYL.

DR. BLANC summarizes the literature of this drug, which about six months ago was presented to the profession. It is a syrupy liquid, colorless, having an aromatic odor, very soluble in alcohol and glycerin, and in water to the extent of 7 per cent. As it changes color to a brown on exposure to the light, it should be kept in blue bottles. It is made by mixing phenic, lactic, and salicylic acids in definite proportions (which are not given) at a temperature of 284° F., and after fusion adding menthol and eucalyptol, and on cooling the product is dissolved in 25 per cent. of glycerin. For the sterilization of instruments a 2 per cent. solution, five to ten minutes of contact, is sufficient. Sterilization of garments soiled by pure cultures of cholera bacillus, by immersion in a 10 per cent. solution, is complete in one minute. Tuberculous expectoration is sterilized in from five to fifteen minutes by a 2 per cent. solution, so also are urines and putrefied blood. On the other hand, in experimental work, its administration has not resulted in the death of the animal, hence it may be considered to be of feeble toxicity. It has been employed in vaginal douches, 1 per cent.; in endometritis, 25 per cent. in glycerin; as a caustic in vaginitis, radical cure in six to eight days has followed the use of tampons wet with a 2 per cent. glycerin solution. In conclusion, this product appears to be more antiseptic than phenic acid, but a little less so than sublimate. On the other hand, it is infinitely less poisonous than the latter.—*Revue de Thérapeutique Médico-chirurgicale*, 1893, No. 6, p. 156.

[The formula as given in the *Bulletin of Pharmacy*, 1893, No. 3, p. 118, is: Lactic acid, 31; salicylic acid, 15; menthol, 1½; carbolic acid, 140 parts. The three acids are melted, and the menthol added.—R. W. W.]

MEDICINE.

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ABERRANT TENDONS OF THE HEART.

HUCHARD (*Revue de Médecine*, 13e année, No. 2, p. 113) has recorded the case of a woman, forty-nine years old, in the last stages of chronic interstitial nephritis, who presented intense dyspnœa of uræmic origin. The urine was diminished in quantity, and contained considerable albumin. The lower extremities were œdematous, and the lungs were congested and œdematous. The liver was large, and tender upon pressure. The apex-beat of the heart was situated at the sixth intercostal space, a little without the line of the left nipple. The areas of cardiac and aortic percussion-dulness were considerably increased. The subclavian arteries were prominent, and the vessels of the neck displayed pulsation.

On auscultation, a soft presystolic murmur was discernible, with maximum intensity within the line of the nipple; over the body of the heart a systolic murmur, propagated into the axilla and the dorsal region. In the situation of the ensiform cartilage was heard another murmur, systolic, low-pitched, musical, distinct from the others, and transmitted in the course of the aorta. The hand applied in this area appreciated a vibratory tremor or thrill.

In the diagnosis the existence of aneurism of a valve or of the wall of the heart, tricuspid insufficiency, aortic obstruction or pericardial adhesion, rupture of a tendinous cord, and the presence of a clot or of an aberrant tendinous cord in the left ventricle, were successively considered, and by a process of exclusion the condition last named was diagnosticated.

The patient died, and at the autopsy, in addition to the lesions of chronic interstitial nephritis, hypertrophy and dilatation of the heart, dilatation of